

PDA Application for Collecting Patient Encounter Data For Advanced Practice Nursing Students in a Clinical Setting

Jeffry S. Gordon, Ph.D, Vanderbilt University School of Nursing, Nashville, TN
Ryan McNew, LAN Manager, Vanderbilt University School of Nursing, Nashville, TN

Abstract

Three years ago we developed a web-based clinical log for Advanced Practice nursing students to record patient encounters. Although it solved many problems, students complained about the time it would take to complete each encounter since they actually entered the data twice, once immediately after seeing the patient and later on the web. The solution: Create a PDA version that students populate with data during the day and upload to the main database at night.

Background and Problem

Advanced Practice nursing students have long been required to document their clinical experiences to their preceptors and campus based faculty. Historically this has been accomplished by sending notebooks back and forth through the mail and later by having the students complete optical scan sheets at various times throughout the semester. Both approaches were clumsy. Notebooks and scan sheets were frequently misplaced or lost in the mail. The data was often too late to be of any real use in providing feedback to the student. Collecting this data using notebooks and scan sheets for accreditation documentation purposes was tedious and time consuming as data had to be placed into a common format.

The solution was to create a web-based clinical log that would provide virtually immediate data to the instructors, would allow for immediate feedback to the student, and would easily allow the data to be stored and collated for program evaluation and accreditation evidence. Our students have been using this tool, with annual modifications, for the past three academic years.

However, as with any technology, it advances you two steps forward and one step back. The students complained that they were essentially recording each patient encounter data twice, once in a paper notebook immediately after seeing the patient and once again as they transcribed their notes from the notebook that evening into the webform. There were also concerns, regarding HIPAA, that students might be recording too many patient identifiers in their notebook in order to make their transcription to the web much easier.

The Solution: PDA Version

The solution to this problem was to create a PDA version of the clinical log that interfaces to the database underlying our web application. This tool allows the students to capture the salient encounter information in real time and upload it to the server at their convenience. The application was developed in HandBase for both the Palm and Pocket PC. HandBase was selected because of its multi-platform capability and because it can output a CSV file which can then be easily digested into our online database. The form on the PDA itself has the same fields as in the web version although accommodations had to be made for the lack of screen geography. We also had to develop a number of utilities “behind the scenes” to get the student’s csv file from their PDA into the main online database.

Currently the students have a choice. They can input via the web or use their PDA. From observing the data, the PDA tool is the the overwhelming choice. This poster session will demonstrate the PDA clinical log tool and underlying utilities, and the benefits reported by students and faculty.